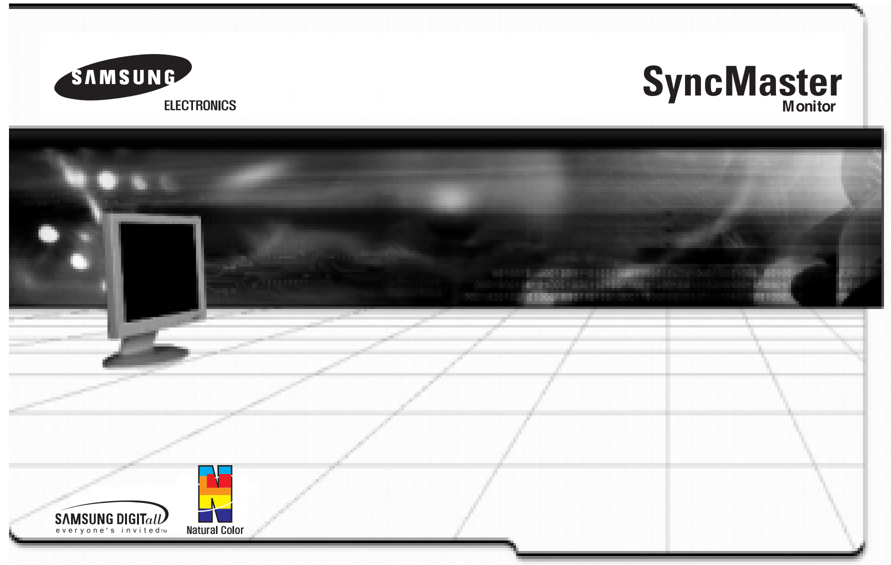
SAMSUNG ELECTRONICS

http://www.samsung-monitor.com
http://www.samsungusa.com/monitor

BN68-00150M-00

SAMSUNG DIGITall
everyone's invited™

SyncMaster 152T/172T/192T



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Safety Instructions

1. Do not use a damaged or loose plug.
2. Do not pull the plug out by the wire nor touch the plug with wet hands.
3. Use only a properly grounded plug and receptacle.
4. Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.
5. Do not connect too many extension cords or plugs to an outlet.
6. Put your monitor in a location with low humidity and a minimum of dust.
7. Do not drop the monitor when moving it.
8. Place the monitor on a flat and stable surface.
9. Set down the monitor carefully.
10. Do not place the monitor face down.
11. Installing a wall bracket must be done by a qualified professional.
12. Do not spray water or detergent directly on the monitor.
13. Use the recommended detergent with a smooth cloth.
14. If the connector between the plug and the pin is dusty or dirty, clean it properly with a dry cloth.
15. Do not remove cover(or back). No user serviceable parts inside.
16. If your monitor does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service.
17. Be careful not to let water drip into the monitor or expose the monitor to moisture.
18. If the monitor is dropped or the casing is damaged, turn the monitor off and unplug the power cord.
19. Keep the power off when there is thunder and lightening outside, or let the monitor remain unused for an extended period of time.
20. Do not try to move the monitor by pulling on the wire or the signal cable.
21. Do not move the monitor right or left by pulling only the wire or the signal cable.
22. Do not cover the vents on the monitor cabinet.
23. Do not place water containers, chemical products or small metal objects on the monitor.
24. Do not use or store inflammable substances near the monitor.
25. Never insert anything metallic into the monitor openings.
26. Do not insert metal objects such as utensils, wire or drill bits, or things that catch fire easily, such as pieces of paper or matches, into the vents or the headphone or A/V ports on the monitor.
27. If you view a fixed screen for an extended period of time, residual image or blurriness may appear.
28. Be careful when adjusting the stand angle.
29. Adjust the resolution and frequency to the levels appropriate for the model.
30. Keep all power adaptors apart.
31. Keep power adaptor away from any other heat source.
32. Remove and discard vinyl bag from power adaptor before use.
33. Always keep power adaptor in well-ventilated area.
34. Keep the volume at a proper level when you use the headphones.
35. Keep a proper distance between your eyes and the monitor screen.

Unpacking Your Monitor

- **Monitor and Stand**

Please make sure the following items are included with your monitor.
If any items are missing, contact your dealer.

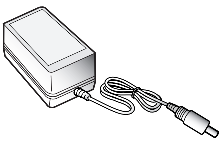
152T/172T



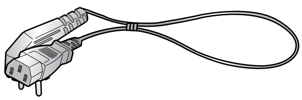
192T



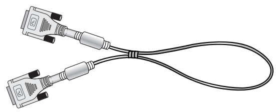
DC-Adapter



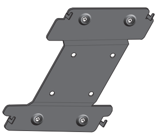
Power Cord



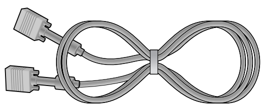
DVI Cable(Option)



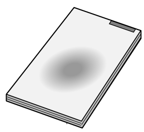
VESA Mounting Bracket



D-Sub Cable

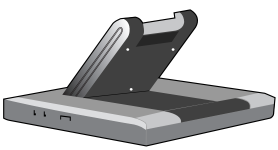


User Manual

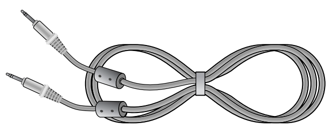


For Multimedia model (Option)

Multimedia Speaker Stand

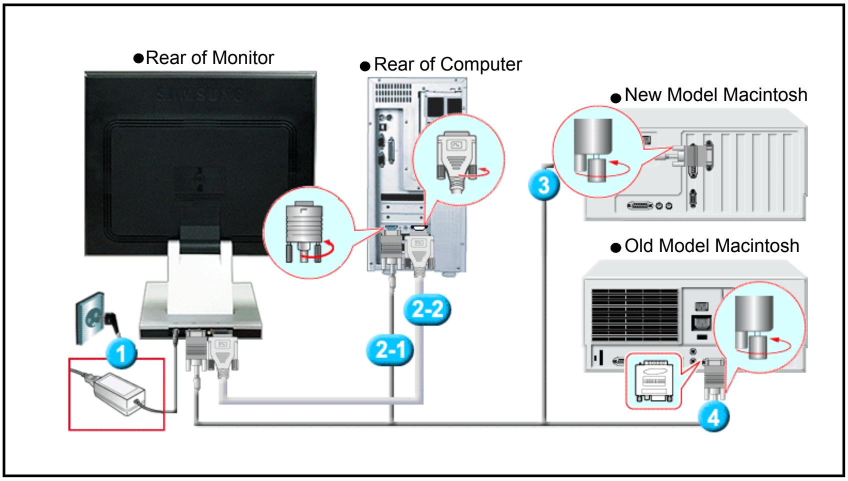


Sound Cables



Setting up Your Monitor

▶ Connecting Your Monitor



1. Connect the DC Adapter for your monitor to the power port on the back of the monitor.
   Plug the power cord for the monitor into a nearby outlet.

2-1. Using the D-sub (Analogue) connector on the video card.
     Connect the signal cable to the 15-pin, D-sub connector on the back of your monitor.

2-2. Using the DVI (Digital) connector on the video card.
     Connect the DVI Cable to the DVI Port on the back of your Monitor.

3. Connected to a Macintosh.
   Connect the monitor to the Macintosh computer using the D-SUB connection cable.

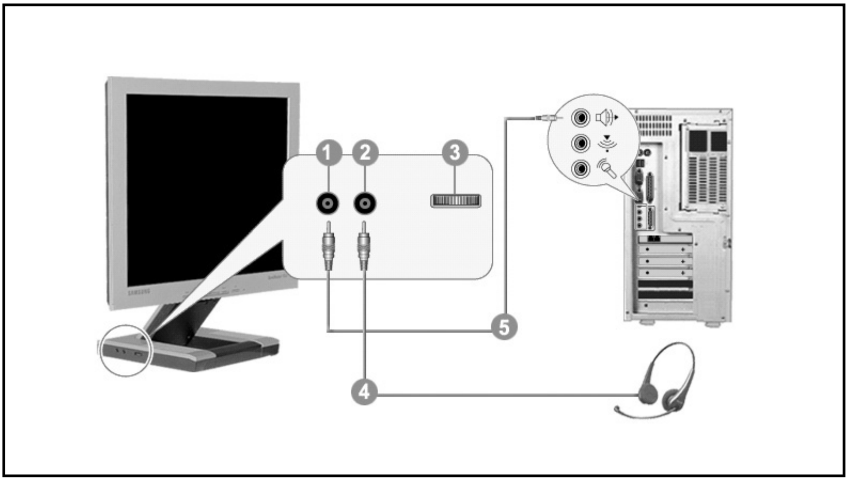
4. In the case of an old model Macintosh, you need to connect the monitor using a special
   Mac adaptor.

5. Turn on your computer and monitor. If your monitor displays an image, installation is complete.

Setting up Your Monitor

► Connecting Your Monitor

Setup-For Multimedia model



1. PC sound connection terminal (Input)
2. Headphone connection terminal (Output)
3. Volume
4. To listen in privacy, connect headphones here.
5. Connect a sound cable from the input source (sound card, computer, CD-ROM drive).

Setting up Your Monitor

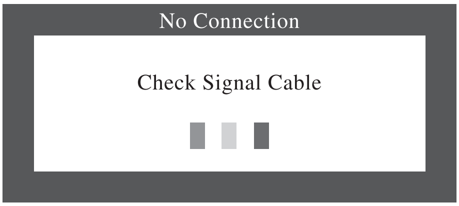
▶Self-Test Feature Check

Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn on the monitor.

   If the monitor is functioning properly, you will see a box with a border and text inside as shown in the following illustration:

   The three boxes inside the border are red, green and blue.



Failure of any of the boxes to appear indicates a problem with your monitor. This box also appears during normal operation if the video cable becomes disconnected or damaged.

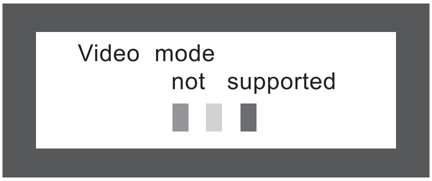
4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

   If your monitor screen remains blank after using the previous procedure, check your video controller and computer system; your monitor is functioning properly.

Setting up Your Monitor

● Warning Messages

If there is something wrong with the input signal, a message appears on the screen or the screen goes blank although the power indicator LED is still on. The message may indicate that the monitor is out of scan range or that you need to check the signal cable.



● Environment

The location and the position of the monitor may influence the quality and other features of the monitor.

1. If there are any woofer speakers near the monitor, unplug and relocate the woofer to another room.
2. Remove all electronic devices such as radios, fans, clocks and telephones that are within 3 feet (one meter) of the monitor.

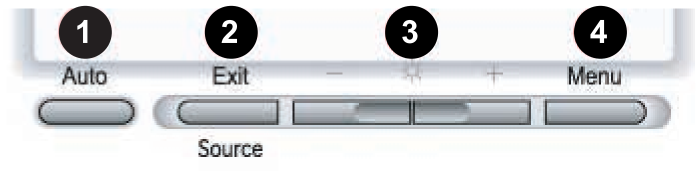
● Useful Tips

- A monitor recreates visual signals received from the PC. Therefore, if there is trouble with the PC or the video card, this can cause the monitor to become blank, have poor coloring, noise, Video mode not supported, etc. In this case, first check the source of the problem, and then contact a service center or your dealer.
- Judging the monitor's working condition
  If there is no image on the screen or an “Video mode not supported” message comes up, disconnect the cable from the computer while the monitor is still powered on.
  - If there is a message coming up on the screen or if the screen goes white, this means the monitor is in working condition.
  - In this case, check the computer for trouble.

Adjusting Your Monitor

▶User Controls

152T/172T



192T



1. Auto button:
   Use this button to auto adjustment direct access.

2. Exit button:
   Use this button to Exit the active menu or the OSD.

● Source button:
   When push the 'Source' button, then Selects the Video signal while the OSD is off. (When the Source button is pressed to change the input mode, a message appears in the center of the screen displaying the current mode -- analog or digital input signal.)

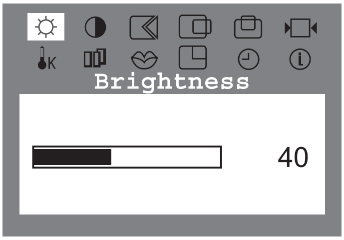
3. Adjust buttons:
   These buttons allow you to highlight and adjust items in the menu.

● MagicBright button(192T Only):
   MagicBright is a new feature providing optimum viewing environment depending on the contents of the image you are watching.
   Currently three different modes are available:
   Text, Internet, and Entertain.
   Each mode has its own pre-configured brightness value.
   You can easily select one of three settings by simply pressing MagicBright control buttons.

4. Menu button:
   Use this button to open the OSD and activate a highlighted menu item.

Adjusting Your Monitor

● Brightness



Adjust the Brightness.

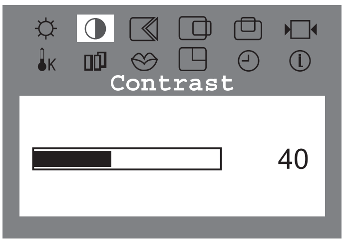
1. Push the Menu (↵) button.

2. Push the Menu (↵) button to open the Brightness adjustment screen.

3. Use the + button to increase the brightness or - button to decrease the brightness.

Direct Access Feature :
When OSD is not on the screen, Push the + or - button to adjust brightness.

● Contrast



Adjust the Contrast.

1. Push the Menu (↵) button.

2. Push the - button or + button until the Contrast screen is displayed.

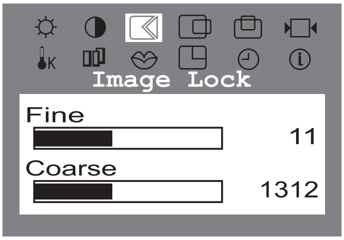
3. Push the Menu (↵) button to open the Contrast adjustment screen.

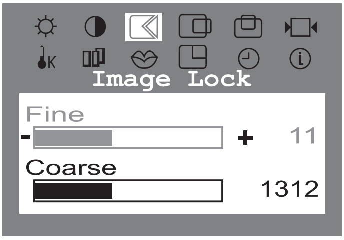
4. Use the + button to increase the contrast or - button to decrease the contrast.

Note: Not Available
This function doesn't work in Digital input.

Adjusting Your Monitor

● Image Lock







Fine

Image Lock is used to fine tune and get the best image by removing noises that creates unstable images with jitters and shimmers. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.

1. Push the Menu (↵) button.

2. Push the - button or + button until the Image Lock screen is displayed.

3. Push the Menu (↵) button twice to open the Fine adjustment screen.

4. Use the - or + buttons to remove any noise.

Note: Not Available

This function doesn't work in Digital input.

Coarse

Image Lock is used to fine tune and get the best image by removing noises that creates unstable images with jitters and shimmers. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.

1. Push the Menu (↵) button.

2. Push the - button or + button until the Image Lock screen is displayed.

3. Push the Menu (↵) button again and then press the - or + button until the Coarse screen appears. Push the Menu (↵) button to open the Coarse adjustment screen.

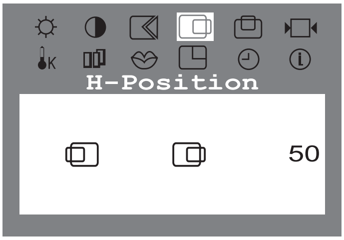
4. Use the - or + buttons to remove any noise.

Note: Not Available

This function doesn't work in Digital input.

Adjusting Your Monitor

● H-Position



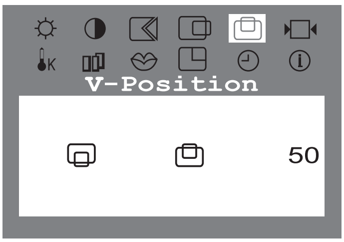
Follow these instructions to change the horizontal position of the monitor's entire display.

1. Push the Menu (↵) button.
2. Push the - button or + button until the H-Position screen is displayed.
3. Push the Menu (↵) button to open the H-Position adjustment screen.
4. Use the - and + buttons to change the horizontal position of the monitor's viewing area.

Note: Not Available

This function doesn't work in Digital input.

● V-Position



Follow these instructions to change the vetical position of the monitor's entire display.

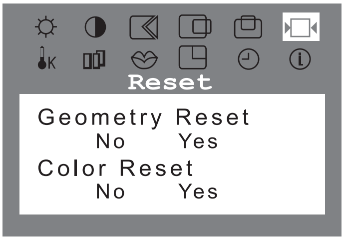
1. Push the Menu (↵) button.
2. Push the - button or + button until the V-Position screen is displayed.
3. Push the Menu (↵) button to open the V-Position adjustment screen.
4. Use the - and + buttons to change the vertical position of the monitor's viewing area.

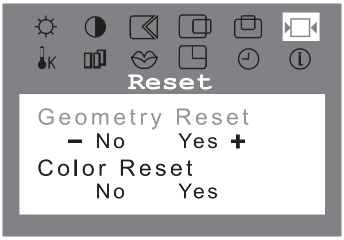
Note: Not Available

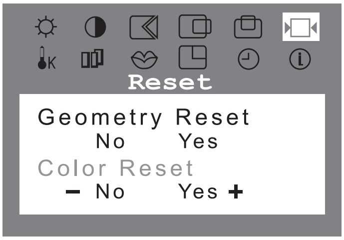
This function doesn't work in Digital input.

Adjusting Your Monitor

● Reset







Geometry Reset

Geometry parameters are replaced with the factory default values.

1. Push the Menu (↵) button.
2. Push the - button or + button until the Reset screen is displayed.
3. Push the Menu (↵) button twice to open the Geometry Reset adjustment screen.
4. Push the + button to select Yes.
   If you don't want to reset the monitor, use the - button to select No.

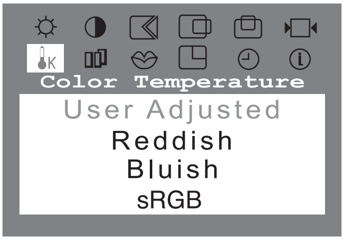
Note: Not Available
This function doesn't work in Digital input.

Color Reset

Color parameters are replaced with the factory default values.

1. Push the Menu (↵) button.
2. Push the - button or + button until the Reset screen is displayed.
3. Push the Menu (↵) button again and then press the - or + button until the Color Reset screen appears. Push the Menu (↵) button to open the Color Reset adjustment screen.
4. Push the + button to select Yes.
   If you don't want to reset the monitor, use the - button to select No.

● Color Temperature (152T/172T)



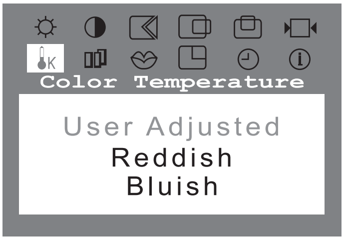
Color temperature is a measure of the "warmth"of the image colors.

1. Push the Menu (↵) button.
2. Push the - button or + button until the Color Temperature screen is displayed.
3. Push the Menu (↵) button to open the Color Temperature adjustment screen.
4. Press the - or + button to select User Adjusted, Reddish, Bluish or sRGB (When you adjust the Brightness and Contrast after sRGB mode is selected, sRGB mode exits.)

Note: Not Available
This function doesn't work in Digital input.

Adjusting Your Monitor

● Color Temperature (192T)



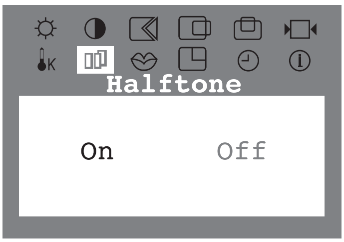
Color temperature is a measure of the "warmth"of the image colors.

1. Push the Menu (↵) button.
2. Push the - button or + button until the Color Temperature screen is displayed.
3. Push the Menu (↵) button to open the Color Temperature adjustment screen.
4. Press the - or + button to select User Adjusted, Reddish, Bluish.

Note: Not Available

This function doesn't work in Digital input.
But sRGB mode works in Digital input.

● Halftone



Change the opaqueness of the background of the OSD.

1. Push the Menu (↵) button.
2. Push the - button or + button until the Halftone screen is displayed.
3. Push the Menu (↵) button to open the Halftone selection screen.
4. Use the - button or + button to select On or Off.

● Language



Follow these steps to change the language used in the menu.
You can choose one of ten languages.
(English, German, Spanish, French, Italian, Swedish, Russian, Chinese, Japanese, Korean)

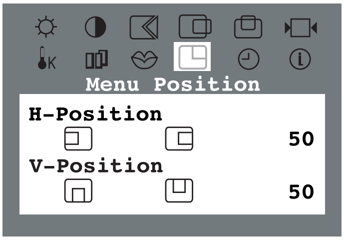
Note

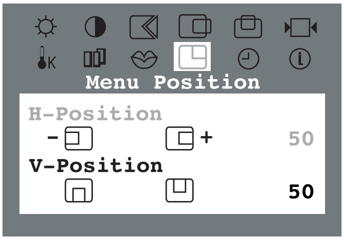
The language chosen affects only the language of the OSD.
It has no effect on any software running on the computer.

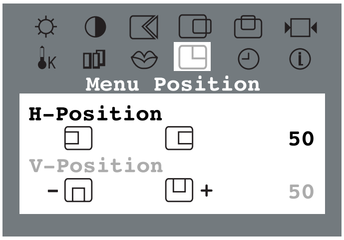
1. Push the Menu (↵) button.
2. Push the - button or + button until the Languages screen is displayed.
3. Push the Menu (↵) button to open the languages selection screen.
4. Use the - button or + button to select the language you would like to use.

Adjusting Your Monitor

● Menu Position







H-Position

You can change the horizontal position where the OSD menu appears on your monitor.

1. Push the Menu (↵) button.
2. Push the - button or + button until the H-Menu Position screen is displayed.
3. Push the Menu (↵) button twice to open the H-Position adjustment screen.
4. Use the - and + buttons to place the menu in the horizontal position you prefer.

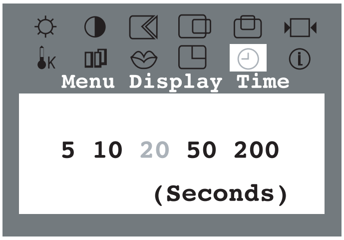
V-Position

You can change the vertical position where the OSD menu appears on your monitor.

1. Push the Menu (↵) button.
2. Push the - button or + button until the V-Menu Position screen is displayed.
3. Push the Menu (↵) button again and then press the - or + button until the V-Position screen appears. Push the Menu (↵) button to open the V-Position adjustment screen.
4. Use the - and + buttons to place the menu in the vertical position you prefer.

Adjusting Your Monitor

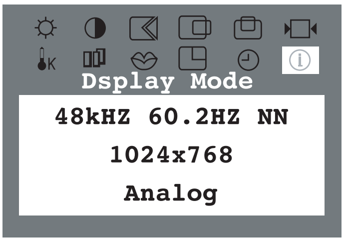
● Menu Display Time



The menu will automatically turn off if no adjustments are made for a certain time period.
You can set the amount of time the menu will wait before it turns off.

1. Push the Menu (↵) button.
2. Push the - button or + button until the Menu Display Time screen is displayed.
3. Push the Menu (↵) button to open the Menu Display Time adjustment screen.
4. Use the - or + buttons to select 5, 10, 20, 50, 200 seconds. 20 seconds is the default value.

● Display Mode (152T/172T)

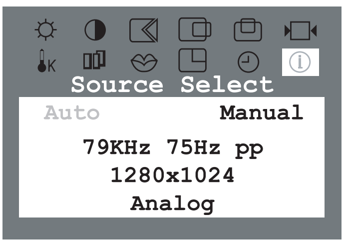


You can see the frequency, the polarity of the operational signals and the resolution level.

Note
These screens do not allow any changes to the settings, they are for information only.

1. Push the Menu (↵) button.
2. Push the - button or + button until the Display Mode screen is displayed.

● Source Select (192T)



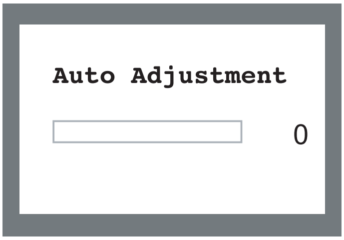
You can see the frequency, the polarity of the operational signals and the resolution level.
Select Auto Source Select for the monitor to automatically select the signal sorce. Select Manual Source Select to manually select the signal source using the Source button. When push the 'Source' button, then Selects the Video signal while the OSD is off. (When the Source button is pressed to change the input mode, a message appears in the center of the screen displaying the current mode -- analog or digital input signal.)

Note
If you select the Digital mode, you must connect your monitor to the graphic card with a digital port using the DVI cable.

1. Push the Menu (↵) button.
2. Push the - button or + button until the Source Select screen is displayed.

Adjusting Your Monitor

● Auto Adjustment



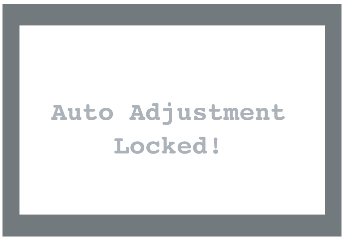
Auto adjustment allows the monitor to self-adjust to the incoming video signal. The values of fine, coarse and position are adjusted automatically.

1. Push the Auto button.

To make the automatic adjustment function sharper, execute the 'AUTO' function while the AUTO PATTERN is on.

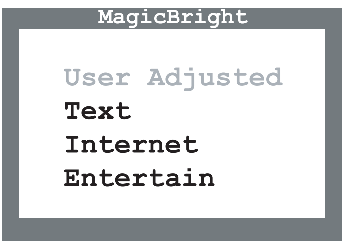
Note: Not Available
This function doesn't work in Digital input.

● OSD Lock/Unlock



1. Push and hold in the Menu (↵) button for 5 seconds or more to Lock the OSD.
2. Push and hold in the Menu (↵) button for 5 seconds or more to Unlock the OSD.

● MagicBright (192T)



Note
Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable to your eyes depending on your taste. If this is the case, adjust Brightness and Contrast by using OSD menu. Or push (+) button when OSD screen is not on to access Brightness control directly.

MagicBright is a new feature providing optimum viewing environment depending on the contents of the image you are watching. Currently three different modes are available: Text, Internet, and Entertain. Each mode has its own pre-configured brightness value. You can easily select one of three settings by simply pressing MagicBright control buttons.

1. Push the MagicBright button.
   Then push the MagicBright button again to circle through available preconfigured modes.
   Text: Normal Brightness
   For documentations or works involving heavy text.
   Internet: Medium Brightness
   For working with mixture of contents such as text and graphics.
   Entertain: High Brightness
   For watching motion pictures such as DVD and VCD.

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer.
Use a software utility installed on your computer to set up this feature.

State		Normal Operation	Power saving mode EPA/ENERGY 2000	Power Switch off 120Vac
Power Indicator		Green	Green, Blinking	Black
Power Consumption	152T	Less than 31W	Less than 2W	Less than 1W
	172T	Less than 42W		
	192T	Less than 45W		

This monitor is EPA ENERGY STAR ® compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPMS functionality.
As an ENERGY STAR ® Partner, SAMSUNG has determined that this product meets the ENERGY STAR ® guidelines for energy efficiency.

Troubleshooting

Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the warranty card, the phone number on the Information section or contact your dealer.

Check List

Symptom	Check List	Solution
No images on the screen. I cannot turn on the monitor.	Is the power cord connected properly?	Check the power cord connection and supply.
	Can you see "No Connection, Check Signal Cable" on the screen?	(Connected using the D-sub cable) Check the signal cable connection. (Connected using the DVI cable) If you still see an (error) message on the screen when the monitor is connected properly, check to see if the monitor status is set to analogue. Press Source button to have the monitor double-check the input signal source.
	If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen.	If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows ME/2000/XP) and then change the frequency of the video card. (Refer to the Preset Display Modes) Note: If the initial screen (the login screen) does not appear, contact a service center or your dealer.
	Can you see "Video mode not supported" on the screen?	You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can properly handle. Adjust the maximum resolution and frequency that the monitor can properly handle.
	There is no image on the screen. Is the power indicator on the monitor blinking at 1 second intervals?	The monitor is in PowerSaver mode. Press a key on the keyboard or move the mouse to activate the monitor and restore the image on the screen.
	Connected using the DVI cable?	You may get a blank screen if you boot the system before you connect the DVI cable, or disconnect and then reconnect the DVI cable while the system is running as certain types of graphic cards do not send out video signals. Connect the DVI cable and then reboot the system.

Troubleshooting

Check List

Symptom	Check List	Solution
I cannot see the On Screen Display.	Have you locked the On Screen Display (OSD) Menu to prevent changes?	Unlock the OSD by pressing the MENU button for at least 5 seconds.
The screen shows strange colors or just black and white.	Is the screen displaying only one color as if looking at the screen through a cellophane paper?	Check the signal cable connection. Make sure the video card is fully inserted in it's slot.
	Have the screen colors become strange after running a program or due to a crash between applications?	Reboot the computer.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
The screen suddenly has become unbalanced.	Have you changed the video card or the driver?	Adjust screen image position and size using the OSD.
	Have you adjusted the resolution or frequency to the monitor?	Adjust the resolution and frequency at the video card. (Refer to the Preset Display Modes).
	The screen can be unbalanced due to the cycle of the video card signals. Readjust Position by referring to the OSD.	
The screen is out of focus or OSD cannot be adjusted.	Have you adjusted the resolution or frequency on the monitor?	Adjust the resolution and frequency of the video card. (Refer to the Preset Display Modes).
LED is blinking but no images on the screen.	Is the frequency properly adjusted when checking the Display Timing on the menu?	Adjust the frequency properly by referring to the video card manual and the Preset Display Modes. (The maximum frequency per resolution may differ from product to product.)
There are only 16 colors shown on the screen. The screen colors have changed after changing the video card.	Have the Windows colors been set properly?	For Windows ME/2000/XP: Set the colors properly at the Control Panel, Display, Settings.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
There is a message that reads "Unrecognized monitor, Plug & Play (VESA DDC) monitor found".	Have you installed the monitor driver?	Install the monitor driver according to the Driver Installation Instructions.
	See the video card manual to see if the Plug & Play (VESA DDC) function can be supported.	Install the monitor driver according to the Driver Installation Instructions.

Specifications

General	
Model Name	SyncMaster 152T
LCD Panel	
Size	15.0 inch diagonal
Display area	304.1 (H) x 228.1 (V)
Pixel Pitch	0.297 (H) x 0.297 (V)
Type	a-si TFT active matrix
Viewing Angle	160/130(H/V)
Synchronization	
Horizontal	30 ~ 61 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,294,277 Colors	
Resolution	
Optimum resolution	1024 x 768@60Hz
Maximum resolution	1024 x 768@75Hz
Input Signal, Terminated	
RGB Analog, DVI Compliant Digital RGB, Composite Sync, SOG(cable option), 0.7 Vp-p Positive at 75 ohms Separate H/V sync, TTL level positive or negative	
Maximum Pixel Clock	
80 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	
Signal Cable	
15pin-to-15pin D-sub cable, detachable, DVI-D to DVI-D cable, Detachable	
Power Consumption	
Less Than 31W	
Dimensions (WxDxH) / Weight	
357.5 X 184.5 X 361.6mm (After installing of Stand) / 2.9kg (With Bagic Stand) 357.5 X 50.7 X 288.5mm (After folding the stand) / 3.1kg (Multimedia Stand)	
VESA Mounting Interface	
75mm x 75mm (for use with Specialty(Arm) Mounting hardware.)	
Environmental considerations	
Operating	Temperature: 50°F ~ 104°F(10°C ~ 40°C) Humidity: 10% ~ 80%, non-condensing
Storage	Temperature: -4°F ~113°F (-20°C ~ 45°C) Humidity: 5% ~ 95%, non-condensing
Dot Acceptable	
TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness. • For example, the no. of TFT LCD pixels that is contained in this product are 2,359,296.	
Plug and Play Capability	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	

Note Design and specifications are subject to change without prior notice.

Specifications

General	
Model Name	SyncMaster 172T
LCD Panel	
Size	17.0 inch diagonal
Display area	337.92 (H) x 270.336 (V)
Pixel Pitch	0.264 (H) x 0.264 (V)
Type	a-si TFT active matrix
Viewing Angle	170/170(H/V)
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,294,277 Colors	
Resolution	
Optimum resolution	1280 x 1024@60Hz
Maximum resolution	1280 x 1024@75Hz
Input Signal, Terminated	
RGB Analog, DVI Compliant Digital RGB. Composite Sync, SOG(cable option), 0.7Vp-p Positive at 75 ohms Separate H/V sync, TTL level positive or negative	
Maximum Pixel Clock	
140 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	
Signal Cable	
15pin-to-15pin D-sub cable, detachable, DVI-D to DVI-D cable, Detachable	
Power Consumption	
Less Than 42W	
Dimensions (WxDxH) / Weight	
385 x 216 x 404.7 mm (After installing of Stand) / 4.7 kg (With Basic Stand) 385 x 56.8 x 324.7mm (After folding the stand) / 4.7 kg (Multimedia Stand)	
VESA Mounting Interface	
75 mm x 75 mm (for use with Specialty(Arm) Mounting hardware.)	
Environmental considerations	
Operating	Temperature: 50°F ~ 104°F(10°C ~ 40°C) Humidity: 10% ~ 80%, non-condensing
Storage	Temperature: -4°F ~113°F (-20°C ~ 45°C) Humidity: 5% ~ 95%, non-condensing
Dot Acceptable	
TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness. • For example, the no. of TFT LCD pixels that is contained in this product are 3,932,160.	
Plug and Play Capability	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	

Note Design and specifications are subject to change without prior notice.

Specifications

General	
Model Name	SyncMaster 192T
LCD Panel	
Size	19.0 inch diagonal
Display area	376.32 (H) x 301.056 (V)
Pixel Pitch	0.297 (H) x 0.297 (V)
Type	a-si TFT active matrix
Viewing Angle	170/170(H/V)
Synchronization	
Horizontal	30 ~ 81 kHz
Vertical	56 ~ 75 Hz
Display Color	
16,194,277 Colors	
Resolution	
Optimum resolution	1280 x 1024@60Hz
Maximum resolution	1280 x 1024@75Hz
Input Signal, Terminated	
RGB Analog, DVI Compliant Digital RGB. Composite Sync, SOG, 0.7Vp-p Positive at 75 ohms Separate H/V sync, TTL level positive or negative	
Maximum Pixel Clock	
140 MHz	
Power Supply	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	
Signal Cable	
15pin-to-15pin D-sub cable, detachable, DVI-D to DVI-D cable, Detachable	
Power Consumption	
Less Than 45W	
Dimensions (WxDxH) / Weight	
431 x 220 x 447 mm (After installing of Stand) / 5.5 kg (With Basic Stand) 431 x 29.7 x 324.7mm (After folding the stand) / 5.6 kg (Multimedia Stand)	
VESA Mounting Interface	
75 mm x 75 mm (for use with Specialty(Arm) Mounting hardware.)	
Environmental considerations	
Operating	Temperature: 50°F ~ 104°F(10°C ~ 40°C) Humidity: 10% ~ 80%, non-condensing
Storage	Temperature: -4°F ~113°F (-20°C ~ 45°C) Humidity: 5% ~ 95%, non-condensing
Dot Acceptable	
TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness. • For example, the no. of TFT LCD pixels that is contained in this product are 3,932,160.	
Plug and Play Capability	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	

Note Design and specifications are subject to change without prior notice.

Display Modes

IIf the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
SyncMaster 172T/192T				
MAC. 640 x 480	35.000	66.667	30.240	-/-
MAC. 832 x 624	49.726	74.551	57.284	-/-
SyncMaster 152T/172T/192T				
IBM. 640 x 350	31.469	70.086	25.175	+/-
IBM. 640 x 480	31.469	59.940	25.175	-/-
IBM. 720 x 400	31.469	70.087	28.322	-/+
VESA. 640 x 480	37.500	75.000	31.500	-/-
VESA. 640 x 480	37.861	72.809	31.500	-/-
VESA. 800 x 600	35.156	56.250	36.000	+.-/+.-
VESA. 800 x 600	37.879	60.317	40.000	+/+
VESA. 800 x 600	46.875	75.000	49.500	+/+
VESA. 800 x 600	48.077	72.188	50.000	+/+
VESA. 1024 x 768	48.363	60.004	65.000	-/-
VESA. 1024 x 768	56.476	70.069	75.000	-/-
VESA. 1024 x 768	60.023	75.029	78.750	+/+
SyncMaster 172T/192T				
VESA. 1280 x 1024	63.981	60.020	108.00	+/+
VESA. 1280 x 1024	79.976	75.025	135.00	+/+
SUN. 1280 x 1024	81.129	76.106	135.00	-/-

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit: Hz

MEMO

Muc Luc

Tieng Viet

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Höông Dan An Toan

1. Khong nen sö dung phích cam bò hong hoac long.
2. Khong nen rut phích cam ra bang cach keo day ñien cung nhö khong nen cham vao phích cam bang tay ööt.
3. Chæ nen dung phích cam va o ñien ñöôc noi ñat ñung.
4. Khong nen lam cong phích cam va day ñien cung nhö khong nen ñat nhöng vat the nang len chung, lam chung hö hong.
5. Khong nen noi qua nhieu day ñien hoac phích cam vao mot o cam.
6. Hay ñat man hình ô nôi co ño am khong cao va ít bui nhat.
7. Khong ñöôc lam rôt man hình khi di chuyen no.
8. Hay ñat man hình tren mot be mat phang va vöng chac.
9. Ñat man hình xuong mot cach can than.
10. Khong ñöôc ñat man hình up mat xuong.
11. Viec gan gia treo töông phai do mot chuyen vien kinh nghiem thöc hien.
12. Khong ñöôc xòt nöôc hoac chat tay tröc tiep len man hình.
13. Hay dung chat tay ñöôc ñe nghò vôi vai mem.
14. Neu cho ket noi giöa phích cam va chan cam bò bam bui hoac ban hay lau chui ñung cach bang vai kho.
15. Khong ñöôc thao vo may (hoac mat sau). Khong ñöôc lap bat cö linh kien nao khac vao ben trong.
16. Trong tröông hôp man hình cua ban hoat ñong khong bình thöông, va ñac biet la man hình phat am thanh hoac toa mui la - hay lap töc thao day cam ñien va lien he vôi mot ñai ly hoac dòch vu ñöôc uy quyen.
17. Hay can than ñöng ñe nöôc vay len man hình hoac ñe man hình chòu hôi am.
18. Neu man hình bò rôt hoac vo man hình bò hö hai, hay tat may va rut phích cam ñien ra.
19. Hay tat man hình khi ngoai trôi co sam set, hoac khi khong sö dung trong thôi gian dai.
20. Khong ñöôc co gang di chuyen man hình bang cach keo day ñien hoac day cap tín hieu.
21. Khong ñöôc di chuyen man hình sang phai hoac trai bang cach chæ keo day ñien hoac day cap tín hieu.
22. Khong ñöôc che phu lo thong hôi tren vo man hình.
23. Khong ñöôc ñat bình chöa nöôc, cac san pham hoa hoc hoac nhöng vat nho bang kim loai len man hình.
24. Khong ñöôc sö dung hoac ñat nhöng chat de chay no gan man hình.
25. Khong bao giô ñöôc gan bat cö vat the bang kim loai nao vao ben trong man hình.
26. Khong ñöôc gan nhöng vat kim loai nhö ño dung nha bep, day dan hoac mui khoan; hay nhöng vat de bat löa nhö nhöng mau giay hoac diem quet vao lo thong hôi hoac cong headphone hoac cong A/V tren man hình.
27. Neu ban xem mot man hình co ñònh trong thôi gian dai, hien töông hình to ra hoac mô ñi co the xuat hien.
28. Hay can than khi ñieu chænh gia ñô cua man hình.
29. Ñieu chænh ño phan giai va tan so ô möc ño thích hôp ñoi vôi kieu may.
30. Hay ñe nhöng bo ñoi ñien cach xa nhau.
31. Hay ñe bo ñoi ñien tranh xa bat cö nguon phat nhiet khac nao.
32. Thao bo cac boc nhöa khoi bo ñoi ñien tröôc khi sö dung.
33. Luon giö bo ñoi ñien ô nôi thong thoang.
34. Hay chænh am löông ô möc thích hôp khi ban sö dung headphone.
35. Hay giö mot khoang cach thích hôp giöa mat va man hình.

Man Hình Vi Tính

- Man Hình va Chan Ñe

Kiem tra vat tö dööi ñay co ñööc kem theo man hình hay khong.
Neu khong ñu, lien lac vôi ngöôi ban ñe yeu cau nhan ñu.

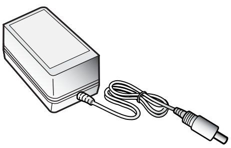
152T/172T



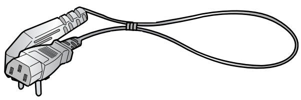
192T



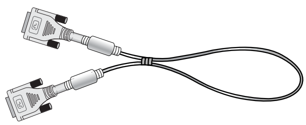
Bo chuyen ñien mot chieu (DC-Adapter)



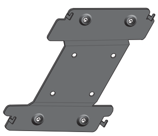
Day nguon



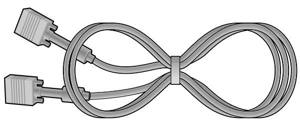
Cap DVI (tuy chon)



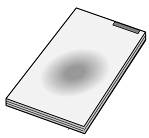
Bo phan treo töông VESA



Cap tín hieu

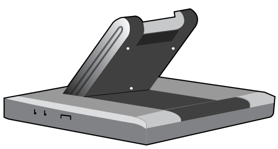


Sach höông dan cai ñat

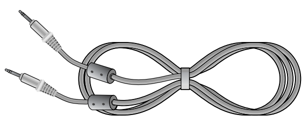


- **Danh cho kieu may Ña phöông tien (Multimedia) (Tuy chon)**

Bo loa ñöng Multimedia

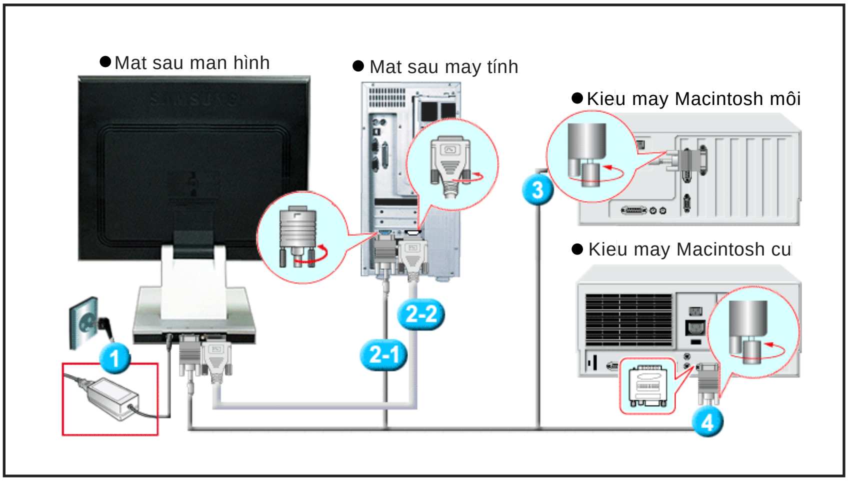


Cap am thanh



Cai Ñat Man Hình

▶ Ket Noi Man Hình



1. Gan bo bien ñien mot chieu cho man hình cua ban vao cong ñien nguon ô mat sau man hình.
   Cam day nguon cua man hình vao o cam ñien gan nhat.

2-1. Dung bo noi D-Sub (Analog) tren the video.
   Gan cap tín hieu vao khe cam 15 chan, D-sub nam ô mat sau cua man hình.

2-2. Dung bo noi DVI (Digital) tren the video.
   Ket noi cap DVI vao ngo DVI ô mat sau man hình.

3. Ket noi vôi mot may tính Macintosh.
   Cam man hình vao may Macintosh bang cap D-SUB.

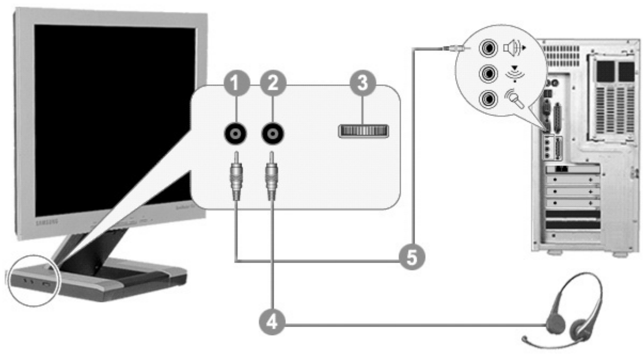
4. Trong tröông hôp sö dung may Macintosh kieu cu,
   ban can mot ñau noi ñac biet danh cho may MAC ñe cam man hình vao may.

5. Bat may tính va man hình.
   Neu man hình hien thò hình anh, qua trình lap ñat thanh cong.

Cai Ñat Man Hình

▶ Ket Noi Man Hình

Cai ñat danh cho kieu may Multimedia



1. Khe cam am thanh PC (Ñau vao - Input)

2. Khe cam headphone (Ñau ra - Output)

3. Am löông

4. Ñe nghe mot mình, cam headphone vao ñay.

5. Cam mot cap am thanh tö nguon phat (card am thanh, may tính, o ñóa CD-ROM).

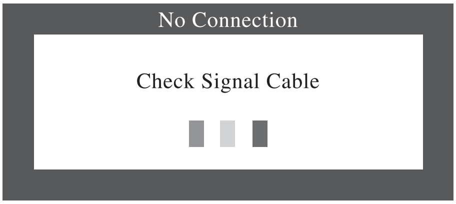
Cai Ñat Man Hình

Kiem tra chöc nang tö kiem:

May tính cua ban co chöc nang tö kiem tra, ban co the kiem tra chöc nang nay bang cach:

1. Tat may tính va man hình cua ban.
2. Rut day tín hieu ra khoi may.
3. Bat nguon cho man hình.

Neu man hình hoat ñong bình thöông, ban se thay mot hop co khung vien va dong chö ben trong nhö hình minh hoa sau:
Ba hop nam trong khung vien la ño, xanh la va xanh lam.



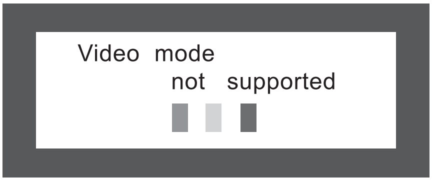
4. Tat nguon man hình va ket noi day tín hieu, sau ño bat ca man hình va may tính.

Neu man hình van mau ñen khi ña thöc hien cac böôc tröôc ño, kiem tra card man hình va he thong may tính.

Cai Ñat Man Hình

● Thong ñiep canh bao

Neu tín hieu vao khong töông thích, mot thong ñiep se xuat hien tren man hình hoac man hình se ñen mac du ñen chæ thò van sang. Thong ñiep chæ ra rang tín hieu vöôt qua möc cho phep man hình hoac ban nen kiem tra day cap tín hieu.



● Moi tröông

Vò trí va höông lap ñat co anh höông ñen chat löông cua man hình.

1. Khong nen ñe loa tram gan man hình ma nen di chuyen loa tram sang phong khac.
2. Ban nen di chuyen cac thiet bò ñien(quat ñien, ñien thoai ...) cach xa man hình khoang hôn 1 met.
3. Ban nen khö tö khi di chuyen man hình sang höông khac.

● Cac löu y khi dung.

Man hình tao ra cac tín hieu co the thay ñöôc, nhan ñöôc tö may tính. Do ño, may tính co van ñe hoac card man hình co van ñe, man hình se chuyen sang mau ñen hoac mau khong chuan, man hình bò on, vöôt möc tín hieu Trong tröông hôp nay, tröôc tien kiem tra cac tín hieu hoac goi cho tram bao hanh neu ban khong giai quyet ñöôc.

Cac van ñe trong qua trình hoat ñong cua man hình.
Neu khong co hình anh hoac co dong ky tö " Video mode not supported" hien thò tren man hình, thao day tín hieu khoi may tính khi man hình van ñe nguon.

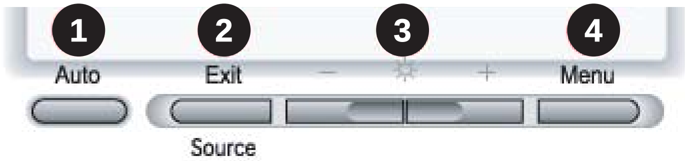
° Neu co ky tö hien thò tren man hình hoac man hình chuyen ve mau trang nghóa la man hình van hoat ñong bình thöông.

° Trong tröông hôp nay, kiem tra may tính cua ban.

Sö Dung Man Hình

▶ Cac Phím Ñieu Chænh

152T/172T



192T



1. Nut Auto:
   Dung phím nay ñe truy cap tröc tiep che ño ñieu chænh tö ñong.

2. Nut Exit:
   Dung thoat khoi cac muc chænh hay man hình hien thò.

● Nut Source:
Khi ban an phím 'Source', man hình se chon tín hieu Video trong khi ño OSD tat. (Khi an phím Source ñe chuyen ñoi che ño ñau vao, mot thong ñiep se hien thò giöa man hình ñe thong bao ve che ño hien hanh -- tín hieu vao ô dang ky thuat so (digital) hay dang töông tö (analog)).

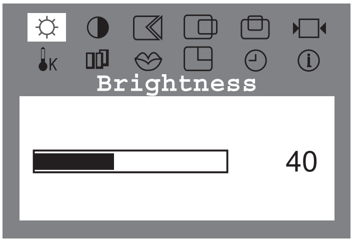
3. Cac phím ñieu chænh:
   Di chuyen con tro tôi muc chon va chænh gia trò trong muc chon.

● Nut MagicBright (chæ co ô 192T):
MagicBright la mot chöc nang môi, tao moi tröôøng thöôøng ngoan toi öu the theo noi dung hình anh ban ñang xem.
Hien ñang co san ba che ño khac nhau:
Text, Internet, va Entertain.
Moi che ño co trò so ño sang rieng ñöôc cau hình san.
Ban co the de dang chon mot trong ba cach thiet lap khi chæ can nhan cac nut ñieu khien MagicBright.

4. Nut MENU:
   Sö dung mô man hình OSD hoac kích hoat cac muc ñöôc chon.

Sö Dung Man Hình

● Ño Sang (Brightness)



Dung hieu chænh ño sang cua man hình hien thò.

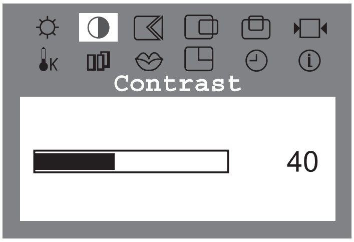
1. An phím Muc Luc (↵).

2. Nhan phím Muc Luc (↵)
   ñe mô man hình ñieu chænh Brightness (Ño sang).

3. Dung phím + ñe tang ño sang hoac phím - ñe
   giam ño sang.

Tính nang truy cap tröc tiep:
Khi OSD khong hien thò tren man hình, nhan phím
+ hoac - ñe ñieu chænh ño sang.

● Ño Töông Phan (Contrast)



Dung hieu chænh ño töông phan cua man hình hien thò.

1. An phím Muc Luc (↵).

2. Nhan phím - hoac + cho ñen khi man hình Contrast
   (Ño töông phan) hien thò.

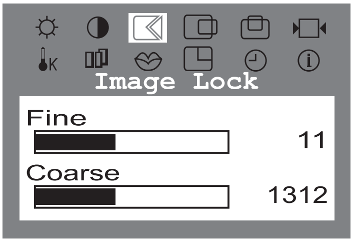
3. Nhan phím Muc Luc (↵)
   ñe mô man hình ñieu chænh Contrast (Ño töông phan).

4. Dung phím + ñe tang ño töông phan hoac phím - ñe
   giam ño töông phan.

Ghi chu: Khong co hieu löc. Chöc nang nay khong
hoat ñong vôi che ño ñau vao Digital.

Sö Dung Man Hình

● Khoa hình anh (Image Lock)



Tinh chænh (Fine)

Chöc nang Image Lock dung ñe tinh chænh hình anh ñe ñat chat löông hình tot nhat bang cach loai bo cac tín hieu nhieu lam hình anh khong on ñònh vì co cac vet mô va rang cöa. Neu chöa ñat ñöôc ket qua nhö y bang chöc nang Fine (Tinh chænh), hay dung chöc nang Coarse (Chænh tho), sau ño dung lai chöc nang Fine.

1. An phím Muc Luc (↵).

2. Nhan phím - hoac + cho ñen khi man hình Image Lock (**Khoa hình anh**) hien thò.



3. Nhan phím Muc Luc (↵) hai lan ñe mô man hình ñieu chænh Fine.

4. Dung phím - hoac + ñe loai bo nhieu.

Ghi chu: Khong co hieu löc. Chöc nang nay khong hoat ñong vôi che ño ñau vao Digital.



Chænh tho (Coarse)

Chöc nang Image Lock dung ñe tinh chænh hình anh ñe ñat chat löông hình tot nhat bang cach loai bo cac tín hieu nhieu lam hình anh khong on ñònh vì co cac vet mô va rang cöa. Neu chöa ñat ñöôc ket qua nhö y bang chöc nang Fine (Tinh chænh), hay dung chöc nang Coarse (Chænh tho), sau ño dung lai chöc nang coarse.

1. An phím Muc Luc (↵).

2. Nhan phím - hoac + cho ñen khi man hình Image Lock (**Khoa hình anh**) hien thò.

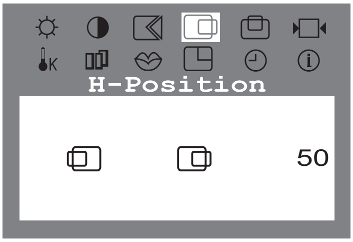
3. Nhan phím Muc Luc (↵) lan nöa, sau ño nhan phím - hoac + ñen khi man hình Coarse hien thò.
Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh Coarse.

4. Dung phím - hoac + ñe loai bo nhieu.

Ghi chu: Khong co hieu löc. Chöc nang nay khong hoat ñong vôi che ño ñau vao Digital.

Sö Dung Man Hình

● Vò trí ngang (H-Position)

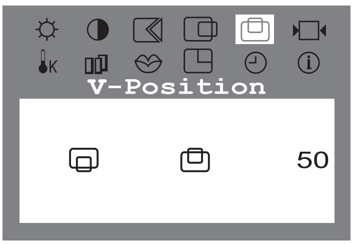


Hay thöc hien theo nhöng höông dan nay ñe thay ñoi vò trí ngang cua toan bo man hình hien thò.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình **H-Position (Vò trí ngang)** hien thò.
3. Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh H-Position.
4. Dung phím - hoac + ñe thay ñoi vò trí ngang cua toan bo man hình hien thò.

Ghi chu: Khong co hieu löc. Chöc nang nay khong
hoat ñong vôi che ño ñau vao Digital.

● Vò trí doc (V-Position)



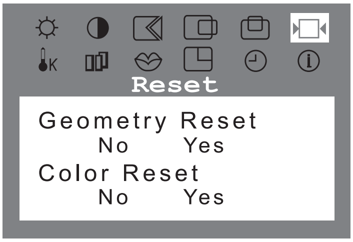
Hay thöc hien theo nhöng höông dan nay ñe thay ñoi vò trí doc cua toan bo man hình hien thò.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình **V-Position (Vò trí doc)** hien thò.
3. Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh V-Position.
4. Dung phím - hoac + ñe thay ñoi vò trí doc cua toan bo man hình hien thò.

Ghi chu: Khong co hieu löc. Chöc nang nay khong
hoat ñong vôi che ño ñau vao Digital.

Sö Dung Man Hình

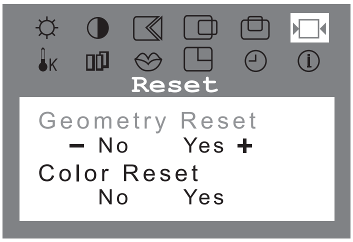
● Cai ñat lai thong (Reset)



Cai ñat lai thong so hình hoc (Geometry Reset)

Cac thong so hình hoc ñöôc thay bang cac gia trò mac ñònh khi san xuat.

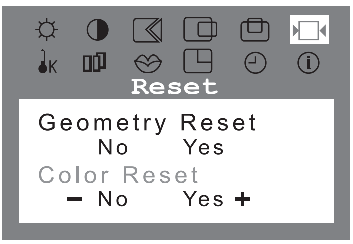
1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình **Reset** (Cai ñat lai thong) hien thò.
3. Nhan phím Muc Luc (↵) hai lan ñe mô man hình ñieu chænh Geometry Reset.
4. Nhan phím + ñe chon Yes.
   Neu ban khong muon cai ñat lai man hình, hay dung phím - ñe chon No.



Ghi chu: Khong co hieu löc. Chöc nang nay khong hoat ñong vôi che ño ñau vao Digital.

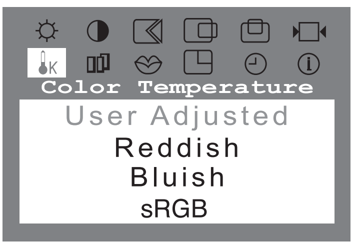
Cai ñat lai thong so mau sac (Color Reset)

Cac thong so mau sac ñöôc thay bang cac gia trò mac ñònh khi san xuat.



1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình **Reset** (Cai ñat lai thong) hien thò.
3. Nhan phím Muc Luc (↵) lan nöa roi nhan phím - hoac + ñen khi man hình Color Reset hien thò.
   Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh Color Reset.
4. Nhan phím + ñe chon Yes.
   Neu ban khong muon cai ñat lai man hình, hay dung phím - ñe chon No.

● Ño nong mau (Color Temperature) (152T/172T)



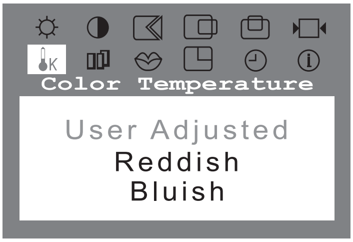
Nhiet ño mau la mot chöc nang ño ño "am" cua mau sac hình anh.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình Color Temperature (Ño nong mau) hien thò.
3. Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh Color Temperature.
4. Nhan phím - hoac + ñe chon cac muc User Adjusted (Ngöôi sö dung ñieu chænh), Reddish (Hôi ño), hoac Bluish (Hôi xanh).

Ghi chu: Khong co hieu löc. Chöc nang nay khong hoat ñong vôi che ño ñau vao Digital.

Sö Dung Man Hình

● Ño nong mau (Color Temperature) (192T)



Nhiet ño mau la mot chöc nang ño ño "am" cua mau sac hình anh.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình Color Temperature (Ño nong mau) hien thò.
3. Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh Color Temperature.
4. Nhan phím - hoac + ñe chon cac muc User Adjusted (Ngöôi sö dung ñieu chænh), Reddish (Hôi ño), hoac Bluish (Hôi xanh).

Ghi chu: Khong co hieu löc. Chöc nang nay khong hoat ñong vôi che ño ñau vao Digital.

● Ño trung gian mau (Halftone)



Thay ñoi ño mô ñuc cua hình nen OSD.

1 An phím Muc Luc (↵).

2 An phím - hoac + tôi khi man hình Menu hien thò.

3 An phím Muc Luc (↵) ñe vao man hình Halftone.

4 Dung nut - hoac + ñe chon bat hoac tat.

● Ngon Ngö (Language)



Ban co the chon mot trong möôi ngon ngö hien thò co trong may.
(English, German, Spanish, French, Italian, Swedish, Russian, Chinese, Japanese, Korean)

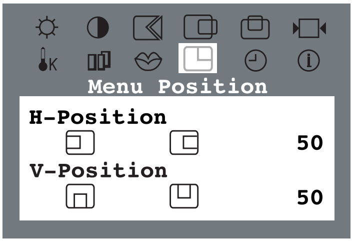
Ghi chu

Ngon ngö ñöôc chon chæ anh höông tren man hình hien thò, khong anh höông tôi ngon ngö hien thò trong cac phan mem ban sö dung.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình Language (Ngon Ngö) hien thò.
3. Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh Language.
4. An phím - hoac + ñe chon ngon ngö muon hien thò.

Sö Dung Man Hình

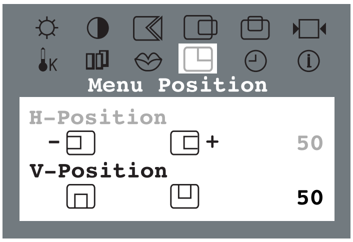
● Vò trí Muc luc (Menu Position)



Vò trí ngang (H-Position)

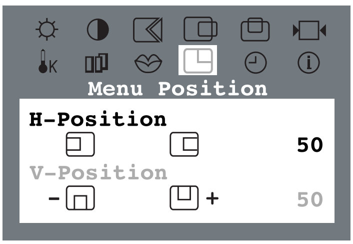
Ban co the thay ñoi vò trí ngang cua nôi xuat hien muc luc OSD tren man hình.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình H-Menu Position (Vò trí Muc luc) hien thò.
3. Nhan phím Muc Luc (↵) hai lan ñe mô man hình ñieu chænh H-Position.
4. Dung phím - hoac + ñe ñat muc luc vao vò trí ngang ma ban thích.



Vò trí doc (V-Position)

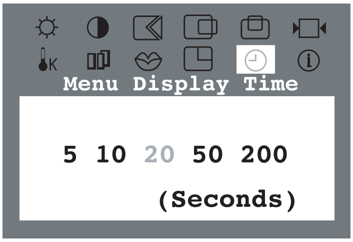
Ban co the thay ñoi vò trí doc cua nôi xuat hien muc luc OSD tren man hình.



1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình V-Menu Position (Vò trí Muc doc) hien thò.
3. Nhan phím Muc Luc (↵) lan nöa roi nhan phím - hoac + ñen khi man hình V-Position (Vò trí doc) hien thò. Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh V-Position.
4. Dung phím - hoac + ñe ñat muc luc vao vò trí doc ma ban thích.

Sö Dung Man Hình

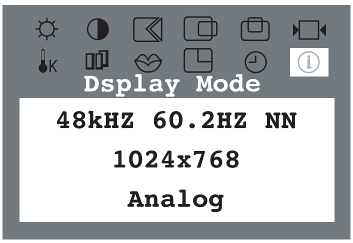
● Thôi gian hien thò muc luc (Menu Display Time)



Muc luc se tö ñong tat neu khong thöc hien ñieu chænh nao trong mot khoang thôi gian nhat ñònh. Ban co the cai ñat thôi gian chô cua muc luc tröôc khi tö ñong tat.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình **Menu Display Time (Thôi gian hien thò muc luc)** hien thò.
3. Nhan phím Muc Luc (↵) ñe mô man hình ñieu chænh **Menu Display Time**.
4. Dung phím - hoac + ñe chon cac gia trò 5, 10, 20, 50, 200 giay. Gia trò mac ñònh la 20 giay.

● Che ño hien thò (Display Mode) (152T/172T)



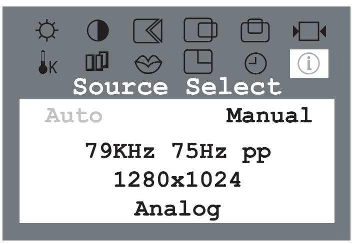
Ban co the thay gia trò tan so, sö khac biet cua cac tín hieu hoat ñong va cap ño phan giai.

Ghi chu

Cac thong tin tren man hình khong the thay ñoi, chung chæ mang tính chat cac thong tin tham khao.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + ñen khi man hình Display Mode hien thò.

● Source Select (192T)



Ban co the thay gia trò tan so, sö khac biet cua cac tín hieu hoat ñong va cap ño phan giai.
Chon Auto Source Select ñe cho man hình tö ñong chon nguon tín hieu. Chon Manual Source Select ñe ban tö chon nguon tín hieu bang cach dung nut Source.
Khi ban an phím 'Source', man hình se chon tín hieu Video trong khi ño OSD tat. (Khi an phím Source ñe chuyen ñoi che ño ñau vao, mot thong ñiep se hien thò giöa man hình ñe thong bao ve che ño hien hanh -- tín hieu vao ô dang ky thuat so (digital) hay dang töông tö (analog)).

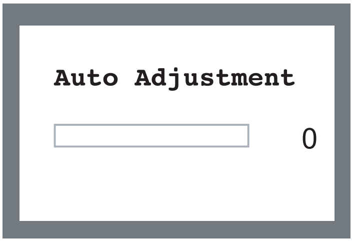
Ghi chu

Neu chon che ño Digital, ban phai ket noi man hình vôi card ño hoa bang cach dung cap DVI qua cong digital.

1. An phím Muc Luc (↵).
2. Nhan phím - hoac + cho ñen khi man hình Source Select hien thò.

Sö Dung Man Hình

● Ñieu chænh tö ñong (Auto Adjustment)



Chöc nang Auto Adjustment cho phep man hình co the tö ñieu chænh theo tín hieu video nhan ñöôc. Cac gia trò Fine, Coarse va Position se ñöôc ñieu chænh tö ñong.

1. Nhan phím Auto.

Ñe cho chöc nang ñieu chænh tö ñong chính xac hôn, hay kích hoat chöc nang 'AUTO' trong khi AUTO PATTERN ñang hoat ñong.

Ghi chu: Khong co hieu löc. Chöc nang nay khong
hoat ñong vôi che ño ñau vao Digital.

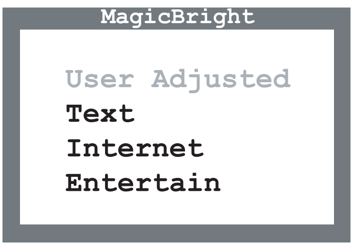
● Khoa/Mô Khoa (OSD Lock/Unlock)



1. An va giö phím Muc Luc (↵) trong khoang hôn 5 giay ñe khoa man hình hien thò.

2. An va giö phím Muc Luc (↵) trong khoang hôn 5 giay ñe mô khoa man hình hien thò.

● MagicBright (192T)



Ghi chu

Mac du cac gia trò ña ñöôc cac ky sö chon löa can than, nhöng cac gia trò ñöôc cau hình tröôc nay co the khong lam ban thoai mai do khong hôp thò hieu cua ban. Neu vay, hay chænh Brightness vaContrast bang viec sö dung trình ñôn OSD. Hoac nhan nut (+) khi khong co man hình OSD ñe thao tac ñieu chænh tröc tiep Ño sang.

MagicBright la mot chöc nang môi, tao moi tröông thöông ngoan toi öu the theo noi dung hình anh ban ñang xem.
Hien ñang co san ba che ño khac nhau:
Text, Internet, va Entertain.
Moi che ño co trò so ño sang rieng ñöôc cau hình san.
Ban co the de dang chon mot trong ba cach thiet lap khi chæ can nhan cac nut ñieu khien MagicBright.

1. Nhan nut MagicBright.
   Sau ño nhan nut MagicBright lan nöa ñe xem qua cac che ño tao cau hình co san.
   Text: Ño sang thöông
   Cho cac tai lieu hay cac cong viec co van ban co khoi löông lôn.
   Internet: Ño sang trung bình
   Ñe lam viec vôi cac noi dung hon hôp nhö van ban va ño hoa.
   Entertain: Ño sang cao
   Ñe xem cac loai phim truyen DVD va VCD.

Tiet Kiem Nang Löông

Man hình Vi tính ñöôc xay döng he thong quan ly nang löông goi la möc nang löông thap. Che ño nay se ñöa may ve che ño tiet kiem nang löông khi may khong dung trong mot khoang thôi gian. Khi ban di chuyen chuot hay an bat ky phím nao tren ban phím, man hình se hoat ñong lai bình thöông. Ban nen tat han khi khong sö dung trong mot thôi gian dai hoac khi vang nha.

Che ño tiet kiem nang löông chæ hoat ñong khi may tính cua ban töông thích chuan VESA DPMS.

Tình trang		Bình thöông	Che ño tiet kiem nang löông EPA/ENERGY 2000	Tiet kiem nang löông 120Vac
Ñen chæ thò		Xanh	Ñen xanh nhap nhay	Ñen
Möc tieu thu	152T	Ít hôn 31 W	Ít hôn 2 W	Ít hôn 1 W
	172T	Ít hôn 42 W		
	192T	Ít hôn 45 W		

Giai Quyet Sö Co

Trööc khi goi ñien ñen dòch vu ho trô, hay ñoc lai thong tin trong phan nay ñe xem ban co the tö khac phuc ñööc sö co nao khong. Neu ban that sö can trô giup, xin goi so ñien thoai tren phieu bao hanh, so ñien thoai ve lónh vöc thong tin hoac lien he vôi ngöôi ban hang.

Danh sach kiem tra

Trieu chöng	Danh sach kiem tra	Cac giai phap
Khong co hình tren man hình. Toi khong the bat man hình len.	Day ñien nguon ña ñööc gan ñung cach chöa?	Kiem tra viec noi day ñien va nguon ñien.
	Ban co thay thong bao **“No Connection, Check Signal Cable”** tren man hình khong?	(Ñöôc noi ket bang cap D-sub) Hay kiem tra viec noi cap tín hieu. (Ñöôc noi ket bang cap DVI) Neu ban van thay mot thong bao (loi) tren man hình khi man hình ña ñööc noi ket ñung cach, hay kiem tra tình trang man hình xem co ñat ô töông tö (analog) khong. Hay nhan nut Source ñe man hình kiem tra lai nguon tín hieu nhap.
	Neu ñang co ñien nguon, hay khôi ñong lai may tính ñe xem man hình ban ñau (man hình khôi nhap) nhö the nao.	Neu man hình ban ñau (man hình khôi nhap) xuat hien, hay khôi ñong may tính ô che ño öng dung (che ño safe mode ô **Windows ME/2000/XP**) roi ñoi tan so cua card hình anh. (Hay tham khao Cac che ño hien thò ñat trööc) Löu y: Neu man hình ban ñau (Man hình khôi nhap) khong hien ra, hay lien he vôi trung tam bao hanh hay ngöôi ban san pham.
	Ban co thay thong bao **“Video mode not supported”** tren man hình khong?	Ban co the thay mau tin nay khi tín hieu tö the video vöôt qua ño phan giai va tan so toi ña ma man hình co the xö ly ñööc. Hay ñieu chænh ño phan giai va tan so toi ña ma man hình co the xö ly ñööc.
	Khong co hình anh tren man hình. Co phai ñen bao ñien nguon tren man hình cö nhap nhay sau moi giay?	Man hình ñang ô che ño Tiet kiem ñien. Hay nhan mot phím tren ban phím hay di chuyen chuot ñe kích hoat man hình va phuc hoi hình anh tren man hình.
	Ket noi bang cap DVI?	Ban co the thay mot man hình trang neu ban khôi ñong he thong trööc khi ban noi cap DVI; hay ban rut cap DVI va gan lai trong khi he thong ñang chay vì co mot so loai card ño hoa khong chuyen tín hieu video. Hay noi cap DVI va khôi ñong lai he thong.

Giai Quyet Sö Co

Danh sach kiem tra

Trieu chöng	Danh sach kiem tra	Cac giai phap
Toi khong thay menu On Screen Display.	Ban ña khoa meny On Screen Display (OSD) ñe ngan chang cac thay ñoi chang?	Hay mô khoa OSD bang cach nhan nut MENU ít nhat trong 5 giay.
Man hình hien thò cac mau la hay chæ co trang ñen.	Co phai man hình chæ co mot mau nhö the ñöôc nhìn qua giay kieng khong?	Hay kiem tra viec noi cap tín hieu. Hay chac chan rang card hình anh ña ñöôc an chat vao trong ranh danh cho card video.
	Co phai man hình co nhöng mau sac kì la sau khi chay mot chöông trình hay vì co sö xung ñot giöa cac chöông trình öng dung khong?	Hay khôi ñong lai may tính.
	Card hình anh co ñöôc cai ñat ñung chöa?	Hay cai card hình anh sau khi ñoc höông dan cai card hình anh.
Man hình bat ngô trô nen khong can xöng.	Ban co thay ñoi card hình anh hay trình ñieu khien khong?	Sö dung OSD ñe ñieu chænh kích thöôc va vò trí cua man hình.
	Ban co ñieu chænh ño phan giai va tan so man hình khong?	Ñieu chænh ño phan giai va tan so cua card hình anh. (Xem phan Cac che ño hien thò ñònh tröôc).
	Man hình co the khong can xöng do chu ky tín hieu cua card hình anh. Ñieu chænh lai vò trí bang cach sö dung OSD.	
Man hình bò lech tam hay OSD khong the ñieu chænh ñöôc.	Ban co ñieu chænh ño phan giai va tan so man hình khong?	Ñieu chænh ño phan giai va tan so cua card hình anh. (Xem phan Cac che ño hien thò ñònh tröôc).
LED ñang nhap nhay nhöng khong co hình anh tren man hình.	Tan so co ñöôc ñieu chænh ñung khi ban kiem tra Thôi han Hien thò tren menu khong?	Ñieu chænh tan so thích hôp bang cach tham khao Höông dan sö dung card hình anh va Cac che ño hien thò ñònh tröôc. (Tan so toi ña cho moi ño phan giai co the thay ñoi tuy theo dang san pham.)
Man hình chæ hien thò toi ña 16 mau. Mau tren man hình thay ñoi sau khi ban ñoi card hình anh.	Che ño mau cua Windows co ñöôc cai ñat ñung khong?	Ñoi vôi Windows ME/2000/XP: Hay thiet lap mau thích hôp bang cach vao Control Panel, Display, Settings.
	Card hình anh co ñöôc cai ñat ñung chöa?	Hay cai card hình anh sau khi ñoc höông dan cai card hình anh.
Ban se thay mot thong bao nhö sau: **“Unrecognized monitor, Plug & Play (VESA DDC) monitor found”**.	Ban ña cai ñat chöông trình ñieu khien man hình chöa?	Hay cai ñat chöông trình ñieu khien man hình theo Cac höông dan Cai ñat Trình ñieu khien.
	Hay xem sach Höông dan cai card hình anh ñe xem cac chöc nang Plug & Play (VESA DDC) co ñöôc ho trô khong.	Hay cai ñat chöông trình ñieu khien man hình theo Cac höông dan Cai ñat Trình ñieu khien.

Ñac Tính Ky Thuat

Ñac Tính Chung	
Kieu May	SyncMaster 152T
Man hình LCD	
Kích thöôc	15,0 inch theo ñöông cheo
Vung hien thò	304,1(ngang) x 228,1 (doc)
Kích thöôc ñiem anh	0,297 (ngang) x 0,297 (doc)
Loai	a-si TFT man hình ma tran ñong
Goc nhìn	160/130(ngang/doc)
Hien Thò	
Ngang	30 ~ 61 kHz
Doc	56 ~ 75 Hz
Hien Thò Mau	
16,294,277 mau	
Ño phan giai	
Ño phan giai toi öu	1024 x 768@ 60Hz
Ño Phan Giai Lôn Nhat	1024 x 768@ 75Hz
Giao dien treo VESA	
RGB Analog, DVI Compliant Digital RGB. Composite Sync, SOG (day cap tuy chon), 0,7 Vpp positive at 75 ohms Separate H/V sync, TTL level, positive or negative	
Xung Clock Cöc Ñai	
80 MHz	
Nguon Ñien Cap	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	
Cap tín hieu	
cap 15 chan D-sub, co the thao rôi, DVI-D ~ DVI-D, co the thao rôi	
Möc tieu thu ñien nang	
Toi ña 31 W	
Kích thöôc (rong x day x cao)/Trong löông	
357,5 X 184,5 X 361,6mm (Sau khi lap ñat chan ñe) / 2,9kg (vôi Chan ñe Bagic) 357,5 X 50,7 X 288,5mm (Sau khi gap chan ñe) / 3,1 kg (Chan ñe ña phöông tien)	
VESA Mounting Interface	
75mm x 75mm (dung vôi bo phan treo ñac biet (tay).	
Moi Tröông	
Khi May Hoat Ñong	Nhiet ño: 50°F ~ 104°F(10°C ~ 40°C) Ño am 10% ~ 80%, khong tap trung.
Khi Löu Giö	Nhiet ño: -4°F ~113°F (-20°C ~ 45°C) Ño am 5% ~ 95%, khong tap trung.
Ñiem anh chap nhan ñöôc	
"Man hình TFT LCD ñöôc san xuat bang cong nghe ban dan tien tien vôi ño chính xac 99,999% ñoi vôi san pham nay. Nhöng cac ñiem anh RED (ÑO), GREEN (XANH LA), BLUE (XANH LAM) va WHITE (TRANG) ñoi luc co ve hôi sang hoac ban co the thay mot so ñiem anh ñen. Tình trang nay khong phai do chat löông xau va ban co the sö dung may ma khong phai ban khoan gì. Ví du, tong so ñiem anh TFT LCD co trong san pham nay la 2.359.296"	
Che Ño Plug & Play	
Man hình ñöôc cai ñat che ño Plug & Play. Sö töông thích giöa man hình va may tính se cung cap ñieu kien hoat ñong va cai ñat tot nhat. Trong tröông hôp tot nhat qua trình cai ñat se tö ñong, trö phi, ngöôi sö dung muon cai ñat tuan tö.	

Ghi chu Kieu dang va ñac tính ky thuat co the thay ñoi ma khong can phai bao tröôc.

Ñac Tính Ky Thuat

Ñac Tính Chung	
Kieu May	SyncMaster 172T
Man hình LCD	
Kích thöôc	17,0 inch theo ñöông cheo
Vung hien thò	337,92(ngang) x 270,336 (doc)
Kích thöôc ñiem anh	0,264 (ngang) x 0,264 (doc)
Loai	a-si TFT man hình ma tran ñong
Goc nhìn	170/170 (ngang/doc)
Hien Thò	
Ngang	30 ~ 81 kHz
Doc	56 ~ 75 Hz
Hien Thò Mau	
16,294,277 mau	
Ño phan giai	
Ño phan giai toi öu	1280 x 1024@ 60Hz
Ño Phan Giai Lôn Nhat	1280 x 1024@ 75Hz
Giao dien treo VESA	
RGB Analog, DVI Compliant Digital RGB. Composite Sync, SOG (day cap tuy chon), 0,7 Vpp positive at 75 ohms Separate H/V sync, TTL level, positive or negative	
Xung Clock Cöc Ñai	
140 MHz	
Nguon Ñien Cap	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	
Cap tín hieu	
cap 15 chan D-sub, co the thao rôi, DVI-D ~ DVI-D, co the thao rôi	
Möc tieu thu ñien nang	
Toi ña 42 W	
Kích thöôc (rong x day x cao)/Trong löông	
385 X 216 X 404.7mm (Sau khi lap ñat chan ñe) / 4,7kg (vôi Chan ñe Bagic) 385 X 56.8 X 324.7mm (Sau khi gap chan ñe) / 4,7 kg (Chan ñe ña phöông tien)	
VESA Mounting Interface	
75mm x 75mm (dung vôi bo phan treo ñac biet (tay).	
Moi Tröông	
Khi May Hoat Ñong	Nhiet ño: 50°F ~ 104°F(10°C ~ 40°C) Ño am 10% ~ 80%, khong tap trung.
Khi Löu Giö	Nhiet ño: -4°F ~113°F (-20°C ~ 45°C) Ño am 5% ~ 95%, khong tap trung.
Ñiem anh chap nhan ñöôc	
"Man hình TFT LCD ñöôc san xuat bang cong nghe ban dan tien tien vôi ño chính xac 99,999% ñoi vôi san pham nay. Nhöng cac ñiem anh RED (ÑO), GREEN (XANH LA), BLUE (XANH LAM) va WHITE (TRANG) ñoi luc co ve hôi sang hoac ban co the thay mot so ñiem anh ñen. Tình trang nay khong phai do chat löông xau va ban co the sö dung may ma khong phai ban khoan gì. Ví du, tong so ñiem anh TFT LCD co trong san pham nay la 3.932.160"	
Che Ño Plug & Play	
Man hình ñöôc cai ñat che ño Plug & Play. Sö töông thích giöa man hình va may tính se cung cap ñieu kien hoat ñong va cai ñat tot nhat. Trong tröông hôp tot nhat qua trình cai ñat se tö ñong, trö phi, ngöôi sö dung muon cai ñat tuan tö.	

Ghi chu Kieu dang va ñac tính ky thuat co the thay ñoi ma khong can phai bao tröôc.

Ñac Tính Ky Thuat

Ñac Tính Chung	
Kieu May	SyncMaster 192T
Man hình LCD	
Kích thöôc	19,0 inch theo ñöông cheo
Vung hien thò	376,32(ngang) x 301,056 (doc)
Kích thöôc ñiem anh	0,297 (ngang) x 0,297 (doc)
Loai	a-si TFT man hình ma tran ñong
Goc nhìn	170/170 (ngang/doc)
Hien Thò	
Ngang	30 ~ 81 kHz
Doc	56 ~ 75 Hz
Hien Thò Mau	
16,194,277 mau	
Ño phan giai	
Ño phan giai toi öu	1280 x 1024@ 60Hz
Ño Phan Giai Lôn Nhat	1280 x 1024@ 75Hz
Giao dien treo VESA	
RGB Analog, DVI Compliant Digital RGB. Composite Sync, SOG (day cap tuy chon), 0,7 Vpp positive at 75 ohms Separate H/V sync, TTL level, positive or negative	
Xung Clock Cöc Ñai	
140 MHz	
Nguon Ñien Cap	
AC 90 ~ 264 VAC, 60/50 Hz ± 3Hz	
Cap tín hieu	
cap 15 chan D-sub, co the thao rôi, DVI-D ~ DVI-D, co the thao rôi	
Möc tieu thu ñien nang	
Toi ña 45 W	
Kích thöôc (rong x day x cao)/Trong löông	
431 X 220 X 447mm (Sau khi lap ñat chan ñe) / 5,5kg (vôi Chan ñe Bagic) 431 X 29,7 X 324,7mm (Sau khi gap chan ñe) / 5,6 kg (Chan ñe ña phöông tien)	
VESA Mounting Interface	
75mm x 75mm (dung vôi bo phan treo ñac biet (tay).	
Moi Tröông	
Khi May Hoat Ñong	Nhiet ño: 50°F ~ 104°F(10°C ~ 40°C) Ño am 10% ~ 80%, khong tap trung.
Khi Löu Giö	Nhiet ño: -4°F ~113°F (-20°C ~ 45°C) Ño am 5% ~ 95%, khong tap trung.
Ñiem anh chap nhan ñöôc	
"Man hình TFT LCD ñöôc san xuat bang cong nghe ban dan tien tien vôi ño chính xac 99,999% ñoi vôi san pham nay. Nhöng cac ñiem anh RED (ÑO), GREEN (XANH LA), BLUE (XANH LAM) va WHITE (TRANG) ñoi luc co ve hôi sang hoac ban co the thay mot so ñiem anh ñen. Tình trang nay khong phai do chat löông xau va ban co the sö dung may ma khong phai ban khoan gì. Ví du, tong so ñiem anh TFT LCD co trong san pham nay la 3.932.160"	
Che Ño Plug & Play	
Man hình ñöôc cai ñat che ño Plug & Play. Sö töông thích giöa man hình va may tính se cung cap ñieu kien hoat ñong va cai ñat tot nhat. Trong tröông hôp tot nhat qua trình cai ñat se tö ñong, trö phi, ngöôi sö dung muon cai ñat tuan tö.	

Ghi chu Kieu dang va ñac tính ky thuat co the thay ñoi ma khong can phai bao tröôc.

Che Ño Hien Thò

Neu tín hieu ñöôc truyen ñi tö may töông öng vôi Cac che ño cai ñat ve thôi gian sau ñay, man hình se ñöôc ñieu chænh tö ñong. Tuy nhien, neu tín hieu khac, man hình se bò trang trong khi ñen chæ thò van sang. Chænh card man hình theo bang thong so döôi ñay.

Che ño hien thò	Tan so quet ngang (kHz)	Tan so quet doc (Hz)	Xung clock (MHz)	Sync Polarity (H/V)
SyncMaster 172T/192T				
MAC. 640 x 480	35,000	66,667	30,240	-/-
MAC. 832 x 624	49,726	74,551	57,284	-/-
SyncMaster 152T/172T/192T				
IBM. 640 x 350	31,469	70,086	25,175	+/-
IBM. 640 x 480	31,469	59,940	25,175	-/-
IBM. 720 x 400	31,469	70,087	28,322	-/+
VESA. 640 x 480	37,500	75,000	31,500	-/-
VESA. 640 x 480	37,861	72,809	31,500	-/-
VESA. 800 x 600	35,156	56,250	36,000	+.-/+.-
VESA. 800 x 600	37,879	60,317	40,000	+/+
VESA. 800 x 600	46,875	75,000	49,500	+/+
VESA. 800 x 600	48,077	72,188	50,000	+/+
VESA. 1024 x 768	48,363	60,004	65,000	-/-
VESA. 1024 x 768	56,476	70,069	75,000	-/-
VESA. 1024 x 768	60,023	75,029	78,750	+/+
SyncMaster 172T/192T				
VESA. 1280 x 1024	63,981	60,020	108,00	+/+
VESA. 1280 x 1024	79,976	75,025	135,00	+/+
SUN. 1280 x 1024	81,129	76,106	135,00	-/-

Tan so quet ngang
Thôi gian quet tö phai sang trai cua chieu ngang man hình goi la chu ky quet ngang va nghòch ñao cua chu ky quet ngang goi la tan so quet. Ñôn vò : kHz

Tan so quet doc
Giong nhö ñen huynh quang, man hình se lap lai hình anh nhieu lan tren 4 giay ñe hien thò anh. Tan so cua sö lap lai nay ñöôc goi la tan so quet doc. Ñôn vò : Hz.

MEMO